

Appl. No. 09/749,102
Amendment dated June 30, 2004
Reply to Office Action of May 3, 2004

REMARKS/ARGUMENTS

Applicants have received and carefully reviewed the final Office Action of the Examiner mailed May 3, 2004. Claim 1 has been amended and new claims 57-61 have been added. Support for the amendment and new claims can be found in the specification and claims as originally filed at, for example, page 3, lines 9-32. Claims 1 and 3-61 are pending, with claims 21-52 and 55 withdrawn from consideration as directed to a non-elected invention. Reconsideration and reexamination are respectfully requested.

Restriction/Election

Applicants hereby affirm their election of Group I, claims 1, 3-20, 53, 54, and 56. New claims 57-61 correspond with the elected invention.

35 U.S.C. §102(e)

Claims 1, 3-7, 14-20, and 56 are rejected as anticipated by Friedman (US 6,078,845). Friedman is cited as teaching a replaceable media assembly (the semiconductor device carrier) for use with a system receiving the replaceable media, where a storage means is fixed to the replaceable media. Applicants traverse the rejection.

Claim 1 recites a replaceable media assembly with a storage means containing information including characteristics of the replaceable media, wherein the system controller adjusts the future operation of the system based on one or more characteristic of the replaceable media currently in the system. In the system of Friedman, the data initially contained in the information storage device on the carrier is read by a reader to check that the semiconductor devices are at the correct step in the manufacturing process; the semiconductor devices are removed from the carrier, processed and returned to the carrier; and data relating to those processing steps is written into the information storage device. The data is analyzed to monitor progress of the parts through the manufacturing process and to identify potential problems in the manufacturing process that can be corrected for a subsequent lot of devices. See column 6, lines

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35-61. The system of Friedman uses data relating to the semiconductor devices, not the carrier, to adjust the manufacturing process. Friedman does not teach or contemplate using data relating to one or more characteristic of the carrier (replaceable media) as the basis for adjusting the manufacturing process. It appears that the only data related to the carrier that is collected is related to the remaining life of the carrier. It would appear that this data would be used to determine when the carrier should be replaced. Friedman does not, however, teach or contemplate using this data to adjust the manufacturing process. Friedman thus does not teach each and every element of independent claim 1 or the claims dependent thereon. Withdrawal of the rejection is respectfully requested.

With regard to independent claim 56, the Friedman reference has been carefully reviewed, but no teaching has been found of the storage device containing information including a software upgrade. Friedman teaches the storage device on the carrier as containing information including lot identification, wafer identification, original location on the wafer for each device in the carrier, specific process equipment used to manufacture each device, date and time stamps, inspection results, process steps completed, remaining life of the carrier, and other data pertinent to each individual wafer, die, or device in the carrier. See column 2, lines 31-43. The system of Friedman is for transporting individual semiconductor devices through their manufacturing process. The information stored on the carrier relates to the manufacturing of the semiconductor devices. Thus, there is no need for the carrier to contain a software upgrade or program. Additionally, there is no motivation for one to modify the system of Friedman to include a software upgrade or program in the information contained on the carrier because the purpose of the carrier is to contain information related to the processing of the semiconductor devices it carries. Friedman thus fails to teach each and every limitation of independent claim 56. Withdrawal of the rejection is respectfully requested.

35 U.S.C. §103(a)

Claims 8 and 10-13 are rejected as being unpatentable over Friedman in view of Leblanc et al. (US 6,341,670). Applicant respectfully traverses the rejection. Friedman fails to teach the

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limitations of independent claim 1 for the reasons set forth above. Leblanc et al. do not provide what Friedman lacks. Leblanc et al. teach a brake sensor with a microcontroller and memory chip that stores information about the use and wear of the brake system. See column 5, lines 10-35. The microcontroller and memory chip of the brake sensor of Leblanc et al. are not fixed to a replaceable media such as the brake shoes, but are instead part of the brake assembly attached to the vehicle. Leblanc et al. thus do not teach or suggest a storage means containing information that is fixed to a replaceable media.

The Examiner asserts that it would have been obvious for one of ordinary skill in the art to modify the teachings of Friedman with the teaching of Leblanc et al. because this modification would provide Friedman's teaching with the enhanced capability of controlling the system through efficient monitoring. Applicants respectfully disagree. Friedman teach his system as providing detailed information for monitoring the processing of semiconductor devices using the carrier's information storage device. Friedman thus already provides efficient monitoring of his system. Applicants submit that one of ordinary skill in the art would not look to the vehicle brake monitoring system of Leblanc et al. for modifying the semiconductor processing system of Friedman.

Additionally, even if one were to combine the teachings of Friedman and Leblanc et al., one would not achieve the instant invention. Friedman teaches a system in which a replaceable media (the carrier) contains an information storage device with information about the devices contained in the carrier. Leblanc et al. teach a vehicle brake system containing an information storage and sensing device and a replaceable media (brake shoes). However, in neither reference is there a teaching or suggestion of a replaceable media having an attached storage device containing information relating to characteristics of the replaceable media itself, wherein the system uses those characteristics to adjust the future operation of the system. At best, a combination of the teachings of Friedman and Leblanc et al. would result in the Friedman semiconductor processing system containing a separate monitoring system relating to the replaceable media (the carrier). Thus, neither Friedman nor Leblanc et al., either alone or in

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combination, teach or suggest the limitations of the claims. Withdrawal of the rejection is respectfully requested.

Claim 9 is rejected as being unpatentable over Friedman in view of Hoague (US 6,186,140). Friedman fails to teach the limitations of independent claim 1 for the reasons set forth above. Hoague does not provide what Friedman lacks; thus the combination of Friedman and Hoague also fails to teach or suggest the claimed invention.

Hoague teaches a filter assembly containing a memory device that monitors and records the length of time the filter has been used and provides an alarm to indicate the filter is at the end of its useful life. Applicants submit that there is no motivation for one of ordinary skill in the art to combine the semiconductor processing system of Friedman with the respiratory filter assembly of Hoague. The purpose, elements and functionality of the two systems are completely different. At most, modifying the system of Friedman with the system of Hoague would result in a duplicate monitoring system because Friedman already teaches providing information regarding the remaining life of the semiconductor carrier. Thus, even if the references were combined, one would not achieve the instant invention. Withdrawal of the rejection is respectfully requested.

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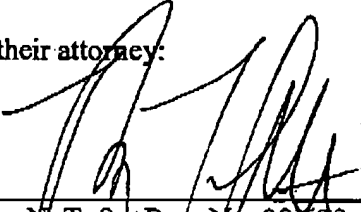
Reconsideration and reexamination are respectfully requested. Applicants respectfully request that claims 21-52 and 55 be reinstated and reconsidered, because one or more generic or linking claims are now in condition for allowance. It is submitted that, in light of the above remarks, all pending claims 1 and 3-61 are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-677-9050.

Respectfully Submitted,

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By their attorney:

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